

CLAIMS

What is claimed is:

- 1 1. A dual-mode speaker capable of automatically reproducing audio from either an
2 analog or a digital source comprising;
3 a speaker input;
4 means for detecting digital audio connected to said speaker input;
5 a digital-to-analog converter connected to said speaker input for converting a
6 digital input signal into an analog signal;
7 a multiplexer for switching from said speaker input to the analog signal from
8 the digital-to-analog converter when said means to detect digital audio detects
9 a digital audio signal;
10 an amplifier connected to the output of said multiplexer;
11 and a speaker connected to the output of said amplifier.
- 1 2. A dual-mode speaker as in claim 1, wherein said means for detecting digital audio
2 includes a filter that detects a range of frequencies.
- 1 3. A dual-mode speaker as in claim 1, wherein said means for detecting digital audio
2 includes a filter that detects frequencies above a predetermined frequency.
- 1 4. A dual-mode speaker as in claim 1, wherein said means for detecting digital audio
2 includes a filter that detects frequencies below a predetermined frequency.

1 5. A dual-mode speaker as in claim 1, wherein said means for detecting digital audio
2 includes a packet header detector.

1 6. A dual-mode speaker as in claim 1, wherein said digital-to-analog converter
2 recognizes USB digital signals and packets and converts them to analog audio
3 signals.

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1 7. A dual-mode speaker as in claim 1, wherein said digital-to-analog converter
2 recognizes S/PDIF digital signals and packets and converts them to analog audio
3 signals.

1 8. A multi-mode speaker capable of automatically reproducing audio from either an
2 analog or a digital source comprising;
3 a speaker input;
4 means for detecting digital audio capable of detecting at least one form of
5 digital audio connected to said input;
6 one or more digital-to-analog converters connected to said input for
7 converting at least one form of encoded digital audio from said input signal
8 into at least one analog signal;
9 a multiplexer for switching from said speaker input to the analog signal from
10 the one of more digital-to-analog converters when said means for detecting
11 digital audio detects a corresponding digital audio content;
12 an amplifier connected to the output of said multiplexer;
13 and a speaker connected to the output of said amplifier.

1 9. A multi-mode speaker as in claim 8, wherein said means for detecting digital
2 audio includes a filter to detect a range of frequencies.

1 10. A dual-mode speaker as in claim 8, wherein said means for detecting digital audio
2 includes a filter that detects frequencies above a certain frequency.

1 11. A dual-mode speaker as in claim 8, wherein said means for detecting digital audio
2 includes a filter that detects frequencies below a certain frequency.

1 12. A multi-mode speaker as in claim 8, wherein said means for detecting digital
2 audio includes a packet header detector.

1 13. A multi-mode speaker as in claim 8, wherein said at least one digital-to-analog
2 converter recognizes USB digital signals and packets and converts them to analog
3 audio signals.

1 14. A multi-mode speaker as in claim 8, wherein said at least one digital-to-analog
2 converter recognizes S/PDIF digital signals and packets and converts them to
3 analog audio signals.

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1 20. An apparatus as in claim 15, wherein said means for converting a digital signal
2 into an analog signal includes decoding USB digital signals and converting the
3 digitally encoded audio into an analog signal.

1 21. An apparatus as in claim 15, wherein said means for converting a digital signal
2 into an analog signal includes decoding S/PDIF digital signals and converting the
3 digitally encoded audio into an analog signal.

1 22. An apparatus as in claim 15, wherein said means to switch the input of said
2 amplifier is a multiplexer.

1 23. An apparatus as in claim 15, wherein said means to switch the input of said
2 amplifier is an analog switch.